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CIMON TOUCH/PPC

WINDOWS BASED CIMON-HMI DEVICE

User Manual

Model: TOUCH/PPC N450



THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS : (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

⚠ Caution

To use this product correctly, it is absolutely required to read the product description before use.

1. For your safety and the safe operation of this product, please read this manual before using the product. The manual is subject to change without notice.
2. Please review the product specification in this manual to determine the suitability of this product for its intended use.
3. For your safety only qualified persons should perform electrical and wiring attachments to this product.

FCC RF
INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

MEMO

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Essential Safety Precautions

⚠ WARNING

Installation

- Please do not dissemble or modify the TOUCH/PPC. It will void the Warranty and may cause a high voltage electric shock.
- This version of the TOUCH/PPC is not rated for flammable environments. Do not use this panel around flammable gases.

Wiring

- To prevent an electric shock, confirm that the power supply is turned-off before making any connection to the TOUCH/PPC.
- Do not use power beyond the specified voltage range of the TOUCH/PPC.
- Doing so may cause a fire or an electric shock.

Maintenance

- The TOUCH/PPC uses a lithium battery to back up the internal clock. Do not replace this battery yourself because it may cause an explosion. If the battery needs to be replaced, please contact your local service center.

⚠CAUTIONS

Installation

- Be sure to securely connect all cable connectors to the TOUCH/PPC. A loose connection may cause incorrect input or output.

Wiring

- Field Ground (FG) wires must be run individually from each unit to the master grounding terminal. DO NOT daisy chain the FG wires between devices.
- Correctly wire the panel, be sure that the rated voltage and terminal layout are within the designated range. If the voltage supplied differs from the rated voltage, or incorrect wiring or grounding is performed, it may cause a fire or unit malfunction and it will void the warranty.
- Use only the designated torque to tighten terminal block screws of the panel. If these screws are not tightened firmly, it may cause a short circuit, fire or panel malfunction.
- Be careful that metal filings and wiring debris do not fall into the TOUCH/PPC, they can cause a fire, panel malfunction or incorrect operation.

Maintenance

- The LCD contains a powerful irritant and if for any reason the TOUCH/PPC is damaged and this liquid contacts any part of your body, be sure to wash that area with running water for 15 minutes. If any of this liquid enters your eye, flush your eye for 15 minutes with running water and contact a physician.

Unit Disposal

- When this unit is disposed of, it should be done so according to your country's regulation for similar types of industrial waste.

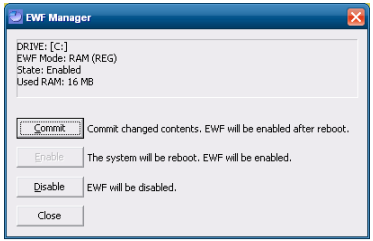
General Safety Precautions

- Do not strike the touch panel with a hard or pointed object, or press on the touch panel with too much force, since it may damage the touch panel or the display.
- Do not install the TOUCH/PPC where the ambient temperature can exceed the allowed range. Doing so may cause the TOUCH/PPC to malfunction or shorten its operation life.
- Do not restrict or limit naturally occurring rear-face ventilation of the TOUCH/PPC, or storing or using the TOUCH/PPC in an environment that is too hot.
- Do not use the TOUCH/PPC in areas where large, sudden temperature changes can occur. These changes can cause condensation to form inside the unit, possibly causing the unit to malfunction.
- Do not allow water, liquids, metal or charged particles to enter inside the TOUCH/PPC, since they can cause either a TOUCH/PPC malfunction or an electrical shock.
- Do not store or use the TOUCH/PPC in direct sunlight, or in excessively dusty or dirty environments.
- Do not store or use the TOUCH/PPC where strong jolting or excessive vibration can occur.
- Do not store or use the TOUCH/PPC where chemicals (such as organic solvents, etc.) and acids can evaporate, or where chemicals and acids are present in the air.
- Do not use paint thinner or organic solvents to clean the TOUCH/PPC.
- Do not store or operate the LCD display in areas receiving direct sunlight, since the sun's UV rays may cause the LCD display's quality to deteriorate.
- If you store the TOUCH/PPC in areas where the temperature is lower than allowed level, the liquid of the LCD will congeal and the LCD can be damage.
- Conversely, if the storage area's temperature becomes higher than the allowed level, the liquid of the LCD will become isotropic, causing irreversible damage to the LCD. Therefore, be sure to store the panel only in areas where temperatures are within those specified in this manual.
- After turning the TOUCH/PPC OFF, be sure to wait a few seconds before turning it ON again. If the TOUCH/PPC started too soon, it may not start up correctly.
- Due to the possibility of unexpected accidents, you must back up the project data of the CIMON HMI regularly.

EWF: Enhanced Write Filter

The C: volume of TOUCH/PPC is protected by EWF(Enhanced Write Filter) of Windows XP Embedded.

- When you setup Windows, install programs or write files in C: volume, new data will be stored in EWF volume not in C: volume directly.
- When you restart TOUCH/PPC, EWF volume will be deleted and C: volume will be restored.



In order to save changed setting and data in C : drive, click"Commit" at [EWF Manager].

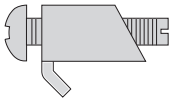
Package Contents

The following items are contained in the package of the TOUCH/PPC. Before using the TOUCH/PPC, please confirm that all items listed here are present.

▪ TOUCH/PPC Unit



▪ Fastener



▪ 3P Connector



▪ 5P Connector



▪ Installation Guide



▪ CD

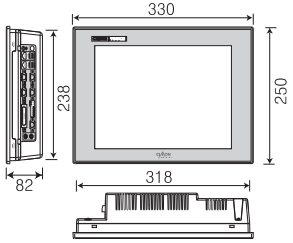


This unit has been carefully packed, with special attention to quality. However, should you find anything damaged or missing, please contact your local Cimon distributor immediately.

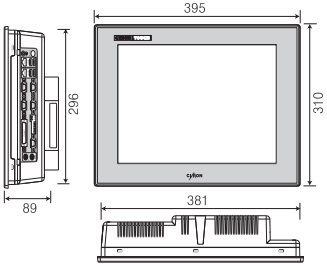
1. Dimensions

Unit : mm

- T12FS
- P12FS



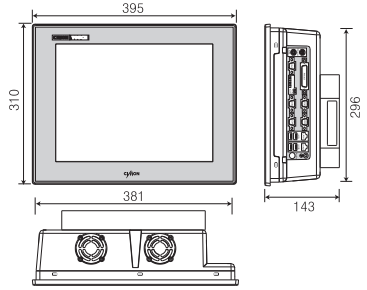
- T15FS
- P15FS



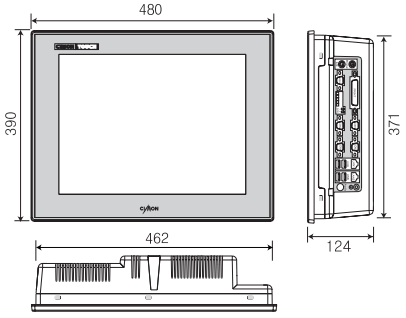
1. Dimensions

Unit : mm

- T15FP
- P15FP

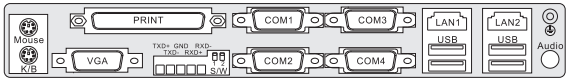


- T19FP
- P19FP



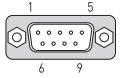
2. Interfaces

▪ Outline



▪ COM1: RS-232C

This interface is used to connect the TOUCH/PPC to the host (PLC) via an RS-232C cable. Connector of RS-485/422 does not work with this COM1 port.

Connector	Pin No.	Name	Description
	1	DCD	Data Carrier Detect
	2	RD	Receive Data
	3	TD	Transmit Data
	4	DTR	Data Terminal Ready
	5	SG	Signal Ground
	6	DSR	Data Set Ready
	7	RTS	Request To Send
	8	CTS	Clear To Send
	9	RI	Ring Indicator

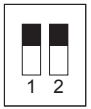
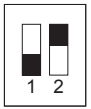
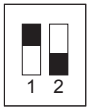
2. Interfaces

■ COM1: RS-422/485

This interface is used to connect the TOUCH/PPC to the host (PLC) via an RS-422/485 cable. Connector of RS-232C does not work with this COM1 port.

Connector	Pin No.	Name	Description
	1	TXD+	Transmit Data +
	2	TXD-	Transmit Data -
	3	GND	Ground
	4	RXD+	Receive Data +
	5	RXD-	Receive Data -

Select RS-232C/422/485

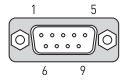
RS-232C (Default)	
RS-485	
RS-422	

- In case of RS-485 connection, connect both TXD+ and TXD-.
- The RS-485 of the TOUCH/PPC runs under auto toggle mode.
- To reduce the risk of damaging the RS-422 circuit, be sure to connect the GND terminal.

2. Interfaces

▪ COM2~COM4: RS-232C

This interface is used to connect the TOUCH/PPC to the host (PLC) via an RS-232C cable.

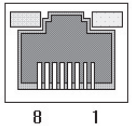
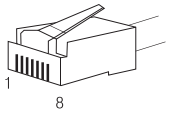
Connector	Pin No.	Name	Description
	1	DCD	Data Carrier Detect
	2	RD	Receive Data
	3	TD	Transmit Data
	4	DTR	Data Terminal Ready
	5	SG	Signal Ground
	6	DSR	Data Set Ready
	7	RTS	Request To Send
	8	CTS	Clear To Send
	9	RI	Ring Indicator

- The serial port of the TOUCH/PPC is not isolated.
- Inside of the TOUCH/PPC unit, the SG (Signal Ground) and FG (Frame Ground) terminals are connected to each other.
- When connecting an external device to the TOUCH/PPC with the SG terminal, ensure that no short-circuit loop is created when you setup the system.

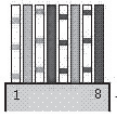
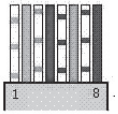
2. Interfaces

■ Ethernet

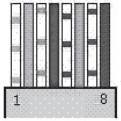
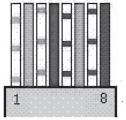
This interface complies with the IEEE802.3 for Ethernet (10BaseT/100BaseTX).

RJ45 Connector	RJ45 Jack
	

Direct Cable : Host ↔ HUB

Cable	No	Color	Color	No	Cable
	1	Orange/W	Orange/W	1	
	2	Orange	Orange	2	
	3	Green/W	Green/W	3	
	4	Blue	Blue	4	
	5	Blue/W	Blue/W	5	
	6	Green	Green	6	
	7	Brown/W	Brown/W	7	
	8	Brown	Brown	8	

Crossover Cable : Host ↔ Host

Cable	No	Color	Color	No	Cable
	1	Orange/W	Green/W	1	
	2	Orange	Green	2	
	3	Green/W	Orange/W	3	
	4	Blue	Blue	4	
	5	Blue/W	Blue/W	5	
	6	Green	Orange	6	
	7	Brown/W	Brown/W	7	
	8	Brown	Brown	8	

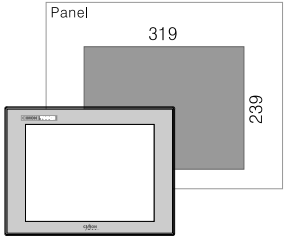
3. Installation

■ Create a Panel Cut and insert the TOUCH/PPC into the panel from the front

Unit : mm

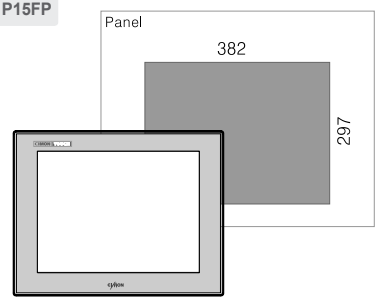
● T12FS

● P12FS



● T15FS / T15FP

● P15FS / P15FP

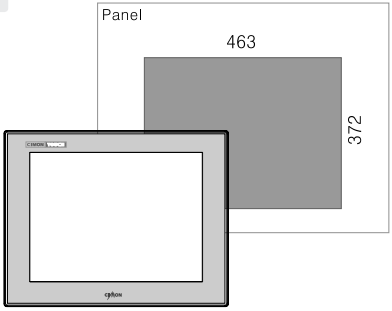


3. Installation

● T19FP

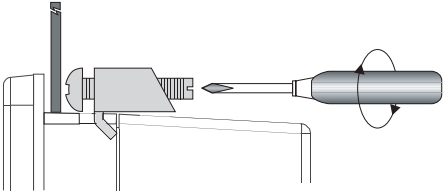
● P19FP

Unit : mm



■ Attach the Installation Fasteners from inside the panel

Insert each the hook of faster into slot and tighten it with a screwdriver.



- Tightening the screws with too much force can damage the case of the TOUCH/PPC.
- The necessary torque is 0.5 N•m.
- Depending on the thickness of installation panel, the number of installation fasteners used may need to be increased to provide the desired level of moisture resistance.

4. Wiring and Power Supply Caution

⚠WARNING

- To avoid an electric shock, when connecting the TOUCH/PPC power cord terminals to the power terminal block, confirm that the TOUCH/PPC power supply is completely turned OFF, via a breaker, or similar unit.
- Since there is no power switch on the TOUCH/PPC unit, be sure to attach a breaker-type switch to its power cord.
- If the power supply voltage exceeds the GP's specified range, connect a voltage transformer.
- Between the line and the ground, be sure to use a low noise power supply. If there is still an excessive amount of noise, connect a noise reducing transformer.
- The power supply cord should not be bundled with or kept close to main circuit lines (high voltage, high current), or input/output signal lines.
- Connect a surge absorber to handle power surges.
- To reduce noise, make the power cord as short as possible.

5. Grounding Caution

- When grounding to the rear face FG terminal of the TOUCH/PPC, (on the Power Input Terminal Block), be sure to create an exclusive ground.
- Inside the TOUCH/PPC unit, the SG (Signal Ground) and FG (Frame Ground) terminals are connected to each other.
- When connecting an external device to the TOUCH/PPC with the SG terminal, ensure that no short-circuit loop is created when you setup the system.

6. Specification

Model	T12FS P12FS	T15FS P15FS	T15FP P15FP	T19FP P19FP
Touch Screen	Analog 8-Wire Resistive			
CPU	Intel ATOM Processor N450 1.6GHz(FANLess)			
RAM	DDR2 SDRAM 1GB(Data transfer rate: 667 MT/s)			
Storage	SSD 120GB			
Graphic Chip	Integrated Intel® Graphics Media Accelerator 3150			
Display	12.1" TFT LCD	15" TFT LCD		19" TFT LCD
Video Out	CRT Output(15P DSUB)			
Serial	RS 232C/422/485 (COM1), RS232C (COM2-4)			
Ethernet	Gigabit Ethernet 2 Port			
Parallel	1 Port			
PS/2	Keyboard & Mouse			
USB	USB 2.0 4 Port			USB 2.0 6 Port
Audio Out	1 Port			
CD-ROM	None		YES	
PCI Slot	None		1 Slot	
OS	Windows Embedded POSReady 2009(XP Base)			
Utility Program	EWF(Disk Image Safeguard) / Rescue(Factory Default Recovering Tool)			
Power	AC110-240V			

6. Environmental Specifications

Item	Specification
Energy consumption	60watts or less
Ambient temperature	0℃~ 50℃
Storage temperature	-20℃~ 60℃
Ambient humidity	10%RH~85%RH(below 29℃, No dew condensation)
Storage humidity	10%RH~85%RH(below 39℃, No dew condensation)
Environment condition	800hPa~1114hPa(2000m or less)
Dust	0.1mg/m^3 or less
Pollution degree	Pollution degree 2
Corrosion gas	None
Vibration resistance	HDD storage type 4.9m/S^2, 10Hz~25Hz in X,Y,Z (80min)
	CF storage type 9.8m/S^2, 10Hz~25Hz in X,Y,Z (80min)
	SSD storage type 9.8m/S^2, 10Hz~25Hz in X,Y,Z (80min)
Noise resistance	Impulse, EFT/Burse, Surge, ±2KV, 1uS
Static discharge resistance	4kV(IEC61000-4-2 LEVEL 3)

7. Calibration Setting

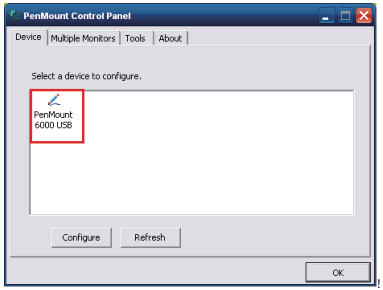
"PenMount Control Panel" is used to calibrate touch point on the screen.

1.Click "PenMount Control Panel"

[Start] → [All Programs] → [PenMount Windows Universal Driver]
→ [Utility] → [PenMount Control Panel]

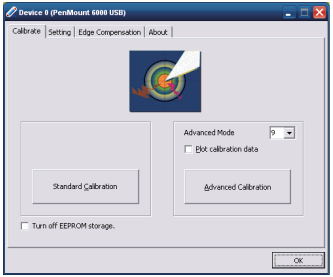


2.Double click "PenMount 6000 USB"



7. Calibration Setting

3.Click “Standard Calibration” to start calibration.



4.The Red point pops up on the top left corner.
Touch the screen with pen and hold for a while to move other point.



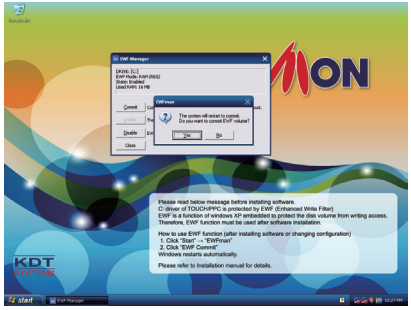
Keep touching the point as instruction on the screen.

5.When touching process is done, touch “OK” to save calibration.

6.Click [Start] → [EWFman]



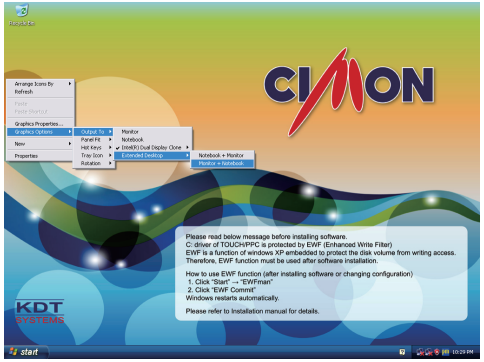
7.Click [Commit] → “Yes” to save changed setting.



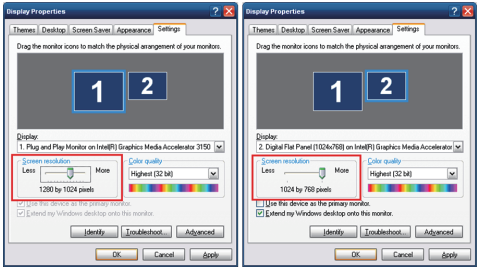
8. Multi-Monitor Setting

If another monitor is used with the TOUCH/PPC, user must set up “Extended Desktop” as following steps.

1.Click right button of mouse on the desktop screen.
Click “Graphics Options” → “Output To” → “Extended Desktop” → “Monitor+Notebook”



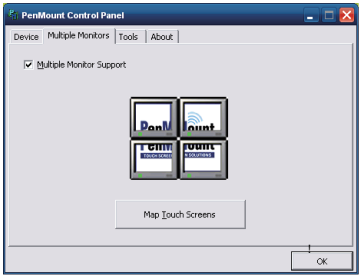
*In case of T19FP and P19FP, “Display Properties” must set up as below.



2.Open “PenMount Control Panel”
Click “Start” → “PenMount Windows Universal Driver” → “Utility” → “PenMount Control Panel”

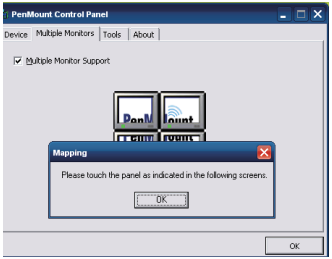


3.Click [Multiple Monitors] and then click “Multiple Monitor Support” and “Map Touch Screens”



8. Multi-Monitor Setting

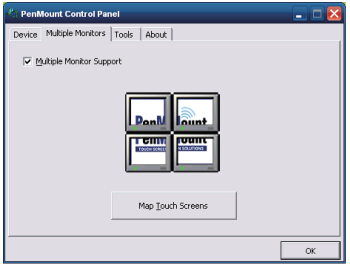
4.Click "OK" to move next step.



5.In this step, touch the screen the screen color changes to white.
Press “S” when screen turns to white color.



6.Click "OK" to save setting.

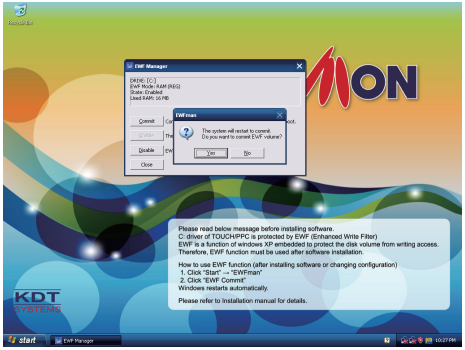


7.Click [Start]→[EWFman]



8. Multi-Monitor Setting

8.Click [Commit] → “Yes” to save changed setting.



*Without “Commit”, changed setting value is not saved.

Products Warranty

January 2014

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MEMO

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